

# High IP3 Low Noise Amplifier

## ZRL-1150LN+ ZRL-1150LN

50Ω 650 to 1400 MHz

### Features

- high IP3, +40 dBm typ.
- low noise figure, 0.8 dB typ.
- broadband flat gain response
- internal voltage regulated
- over-voltage and transient protected

### Applications

- very low noise, preamplifier
- analog/digital cellular
- PCS, GSM, TDMA, CDMA
- GPS and MAS
- aeronautical and defense communications



CASE STYLE: FJ893

Connectors	Model	Price	Qty.
SMA	ZRL-1150LN(+)	\$119.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

### Electrical Specifications at T<sub>AMB</sub>=25°C

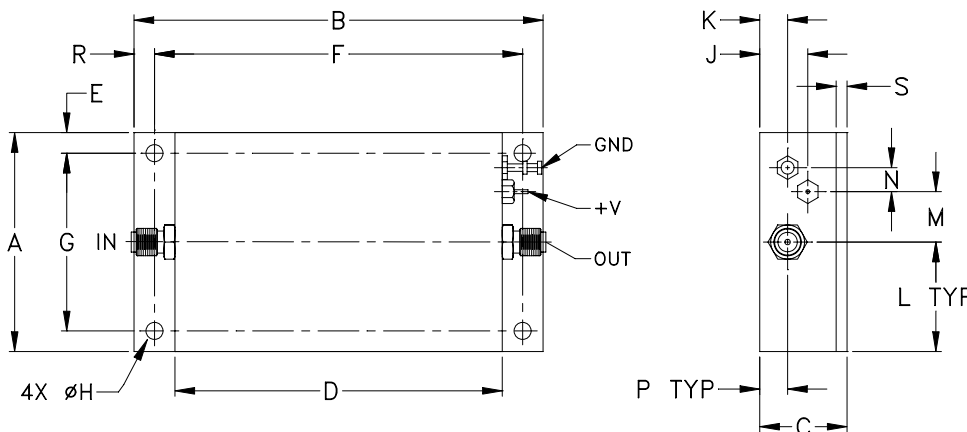
MODEL NO.	FREQUENCY (MHz)		GAIN (dB)				NOISE FIGURE (dB)		MAXIMUM POWER OUTPUT (dBm)			INTERCEPT POINT (dBm) Note 1	VSWR (:1) Typ.		ACTIVE DIRECTIVITY (dB) (Isolation-Gain)	DC VOLTAGE @ Pin V+ (V) Nom. Note 2	DC OPERATING CURRENT @ Pin V+ (mA)														
	f <sub>L</sub>	f <sub>U</sub>	Typ.	Min.	Typ.	Max.	Typ.	Max.	Saturated at (1 dB Compr.)		Typ.		In	Out			Typ.	Typ.	Max.												
ZRL-1150LN(+)	650	1400	32	27	±0.5	±1.0	0.8	1.4	24	22	26.0	+40	1.20	1.25	17	12	450	500													
	685	1000																	±2.0	—	1.1	1.7	24	22	26.3	1.25	1.20	19	12	450	500
	650	1400																	29	25	±2.0	—	1.1	1.7	24	22	26.3	1.25	1.20	19	12

1. 1MHz tone spacing
2. Unit is internally voltage regulated for 6.5 to 17VDC input voltage range.

### Maximum Ratings

Operating Temperature	-40°C to 80°C case
	-40°C to 60°C ambient
Storage Temperature	-55°C to 100°C
DC Voltage	+17V Max.
Input Power (no damage)	+10 dBm
Permanent damage may occur if any of these limits are exceeded.	

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	wt
2.00	3.75	0.80	3.00	0.19	3.374	1.624	0.16	0.44	0.26	1.00	0.51	0.22	0.26	--	0.19	0.10	grams
50.80	95.25	20.32	76.20	4.83	85.70	41.25	3.96	11.18	6.60	25.40	12.95	5.59	6.60	--	4.83	2.54	135

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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

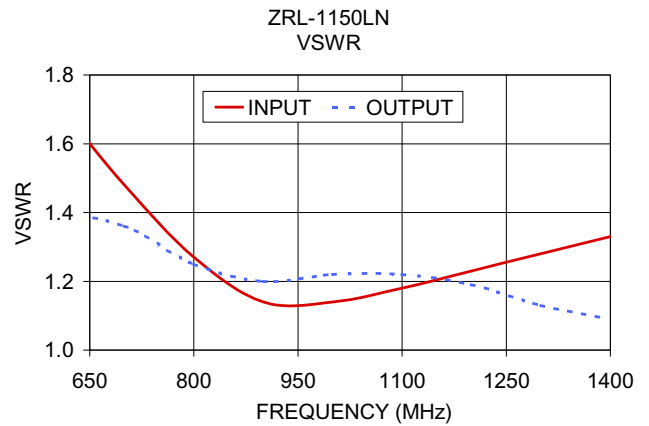
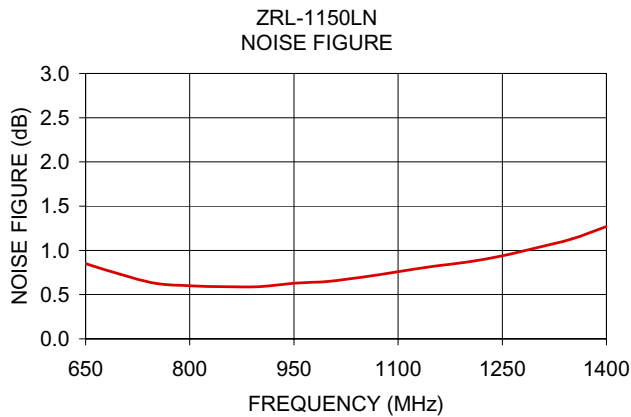
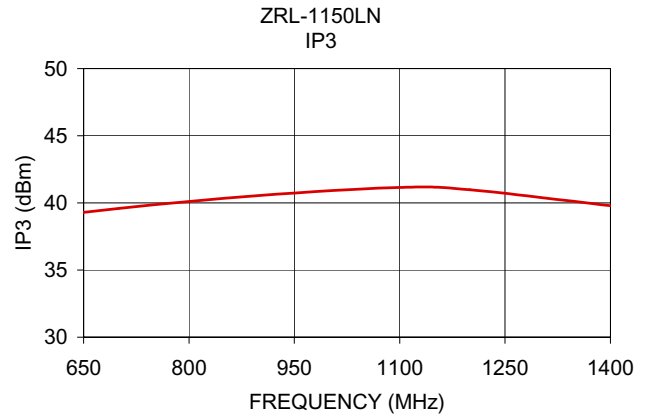
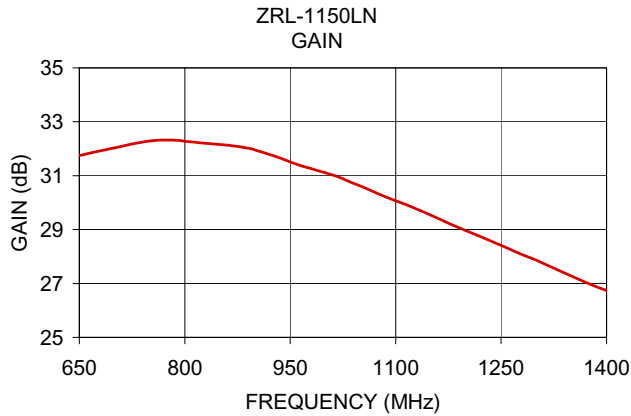
For detailed performance specs & shopping online see web site

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuits' applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at [www.minicircuits.com/MCLStore/terms.jsp](http://www.minicircuits.com/MCLStore/terms.jsp).

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ZRL-1150LN  
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# Typical Performance Data/Curves

## ZRL-1150LN+ ZRL-1150LN



For detailed performance specs & shopping online see web site

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